AMENDMENTS TO THE CLAIMS

In the Claims:

1.-9. (Canceled)

10. (Previously presented) A method of screening a test compound for its ability to induce cytochrome P-450 3A4 (CYP3A4 gene expression comprising

i) contacting said test compound with a protein comprised of a ligand binding domain of human pregnane X receptor (hPXR) having the amino acid sequence 141-434 of SEQ ID NO:14, wherein the protein shares at least 96% amino acid sequence identity with the ligand binding domain of SEQ ID NO:14 and retains the sequence's ligand-binding function,

ii) determining whether said test compound selectively binds to the ligand binding domain of said protein; and

iii) determining whether a test compound that selectively binds to the ligand binding domain of said protein induces receptor binding to a response element in the CYP3A4 gene promoter and expression of a cytochrome P-450 3A4 monooxygenase enzyme.

11.-24. (Canceled)

25. (Previously presented) The method according to claim 10, wherein the method is an in vitro assay.

26. (Canceled)

27. (Previously presented) The method according to claim 10 wherein the protein shares at least 97% amino acid sequence identity with the ligand binding domain of SEQ ID NO: 14 and retains the sequence's ligand-binding function.

28. (Previously presented) The method according to claim 10 wherein said protein has an amino acid sequence including amino acids 130 to 434 of SEQ ID NO: 14.

29. (Previously presented) The method according to claim 10 wherein said protein shares at least 98% amino acid sequence identity with the ligand binding domain of SEQ ID NO: 14 and retains the sequence's ligand-binding function.

30. (Previously presented) The method according to claim 10 wherein said protein bears a detectable label.

31.-33. (Canceled)

34. (Previously presented) The method according to claim 10 wherein the ligand-binding domain of an hPXR polypeptide is fused to a DNA binding domain of a non-hPXR polypeptide.

35.-36. (Canceled)

37. (Previously presented) The method according to claim 25 wherein binding is determined by separating test compound bound to protein from free test compound and free protein.

38. (Currently amended) The method according to claim 10 wherein binding is determined by a scintillation proximity ass[[0]]ay.

39. (Previously presented) The method according to claim 10 wherein binding is determined by competitive bind assay.

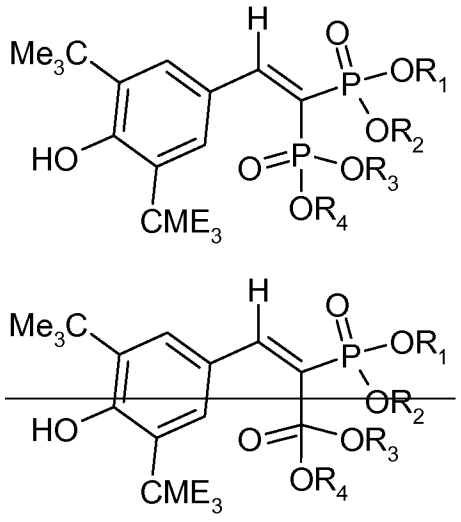
40. (Canceled)

41. (Previously presented) A method of screening a test compound for its ability to bind to a protein comprising human pregnane X receptor ligand binding domain, thereby indicating an increased likelihood that the test compound alters in vivo expression of a cytochrome P-450 3A4 (CYP3A4) monooxygenase enzyme comprising:

i) contacting said test compound with a protein comprised of a ligand binding domain of human pregnane X receptor (hPXR), said ligand binding domain including the amino acid sequence of amino acids 141-434 of SEQ ID NO:14, wherein the protein comprises a domain sharing an amino acid sequence at least 96% identical to the ligand binding domain of SEQ ID NO:14, and

ii) determining whether said test compound selectively binds to the ligand binding domain of said protein.

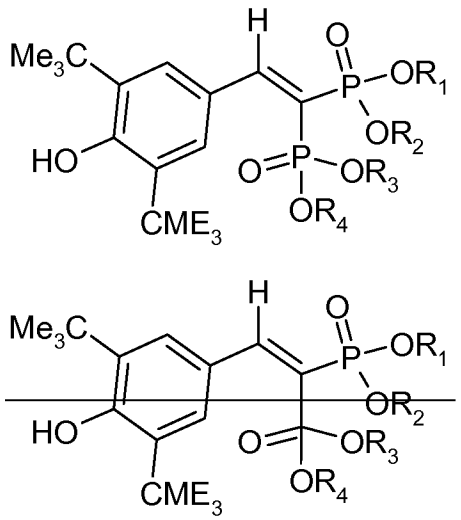
42. (Currently Amended) The method according to claim 39, wherein a test compound of formula 1 is detectably labeled



and each of R1, R2, R3 AND R4 is, independently, C1-C6 alkyl (linear or branched).

43. (Currently Amended) A method for identifying a compound as an hPXR agonist, the method comprising:

providing a polypeptide comprising the ligand-binding domain of an hPXR, wherein the ligand-binding domain comprises amino acids 130-434 of SEQ ID NO:14, wherein the polypeptide selectively binds a detectably labeled compound of formula 1



and each of R1, R2, R3 AND R4 is, independently, C1-C6 alkyl (linear or branched);

contacting the polypeptide with a test compound;

determining whether the binding of the polypeptide to the detectably labeled compound of formula 1 is altered in the presence of the test compound, a decrease in the binding being an indication that the test compound is a competitive inhibitor of the detectably labeled compound of formula 1; and

determining whether expression of a CYP3A4 gene product, following receptor binding to a response element in the CYP3A4 gene promoter, is altered in a cell in the presence of the test compound, wherein an increase in the expression is an indication that the test compound is useful as an hPXR agonist in screening assays.

44. (Previously presented) The method according to claim 42 or 43, wherein the detectably labeled compound of formula 1 is GW-485801.

45. (Previously presented) The method according to claim 43, wherein the cytochrome P450 3A4 gene product is a cytochrome P-450 3A4 monooxygenase enzyme.

46. (Previously presented) The method of claim 10, wherein the ligand-binding domain is a fragment of SEQ ID NO:14 at least 75 consecutive amino acid residues in length.

47. (Previously presented) The method of claim 10, wherein the ligand-binding domain is a fragment of SEQ ID NO:14 at least 50 consecutive amino acid residues in length.

48. (Previously presented) The method of claim 10, wherein the ligand-binding domain is a fragment of SEQ ID NO:14 at least 30 consecutive amino acid residues in length.